Sensor Web and Geoprocessing Services for Pervasive Advertising

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Abstract: Pervasive advertising attracts attention in research and industry. Sensor information in this context is considered to improve the content communication of Pervasive Environments. This paper describes an architecture for integrating sensor information into Pervasive Environments. The sensor information is accessible through an abstraction layer, the Sensor Web, which is based on Web Service technology. The Sensor Web provides access to any deployed sensor for any compliant infrastructure, such as a Pervasive Environment. It thereby does not only access sensors that are deployed specifically for this system, but any sensor in the world that is available through the Sensor Web. In order to extract specific sensor information from the available sensor data, Geoprocessing Services are deployed as an intermediate component in the proposed architecture.